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TEMPLE
ORANGE

Glen Saint Mary Nurseries Co.

FOUNDED 1882

Winter Haven, Florida

Largest Citrus Nurseries
in the World



A well-cared-for Orange Grove promising abundant crops and profits

FOREWORD

GOR over fifty years our main business has been the growing of citrus nursery stock. From the very beginning the dominant principle in the production of our trees has been to deliver to our customers the very best that knowledge and skill can produce. All of our experience, both practical and scientific, has been applied toward that end. While we have grown to be the largest citrus nursery in the world, this does not necessarily mean much to a prospective buyer until he stops to consider that the reason for such growth is nothing more or less than the result of a continued and ever-increasing demand for trees that have absolutely made good in every respect.

It never has been, and never will be, the policy of this Company to over-encourage the planting of citrus in the state, believing rather that new grove plantings should keep pace only with the demand for citrus fruit at satisfactory prices to the grower. With that idea in mind, we are featuring and recommending only the varieties which, in our opinion, offer marked possibilities for future profit.

GLEN SAINT MARY NURSERIES CO.
Winter Haven, Florida



THE GLEN SAINT MARY NURSERIES COMPANY has grown more citrus trees than any other nursery in the world for a great many years. While we produce other nursery trees as well, the growing of citrus trees has always been the paramount interest of our nursery business.

We know the comparative value of different sorts because we are growing them in our test orchards. In these orchards the largest-known collection of citrus fruits is to be found. At the meeting of the American Pomological Society in Washington, in November, 1913, we exhibited eighty-three varieties of citrus fruits. No such collection of citrus fruits grown by one firm was ever brought together before. Not all of these varieties are offered in our lists; only the best, determined by actual test, are propagated.

Our varieties are selected strains, with a straight-line history going back to an individual tree of known merit. Care is taken in propagation to select well-developed buds from trees of authentic parentage, making sure that the young trees are true to name—quality trees in every particular. When the trees are sold, the roots of one-year trees are three to five years old.

Citrus trees can be grown on roots of any member of the whole citrus family. We have tried a great many of them. Most of them, for one cause or another, are not adapted for citrus fruit culture under general conditions. We have found that practically all requirements for success under different climatic and soil conditions can be met with Sour Orange, Rough Lemon, or Cleopatra Mandarin stocks. Successful, heavy-bearing, beautiful groves are produced from trees on all of these stocks. But no one of them will meet all conditions. It is largely a matter of soil, location and climatic conditions.

ROUGH LEMON. Rough Lemon is the thriftiest and induces a vigorous growth of top. On account of its wide-spreading root system, it is the best stock for light sandy soils, such as are found on the lower East Coast and in the high rolling regions of Polk, Orange and Lake Counties to be quite immune from frosts, and to this type of soil the Rough Lemon stock is best suited.

SOUR ORANGE. A deep-rooted stock, adapted to the heavier soils such as good flat woods land, hammock and muck, where it produces fine, vigorous trees. For the production of high-quality, late-keeping fruit it is unsurpassed.

CLEOPATRA. This stock grows well on medium soils. It is hardy, and varieties worked on it produce good crops of fine quality. The Temple Orange has proved to be extremely successful on this stock.

CITRUS TRIFOLIATA. Citrus trees on this stock are suitable for planting only in North Florida and the Gulf States. These trees are grown at our main nursery at Glen Saint Mary, Fla. Write us there for list of varieties and prices.

Varieties Propagated on Different Stocks

Some varieties are more successfully grown on certain stocks than on others. Having this in mind, as well as certain other features, we do not attempt to grow or to offer to our customers citrus nursery trees of every kind budded upon each of the three stocks. It sometimes happens, of course, that a variety on one of the stocks is sold out, in which case it cannot be supplied until the next season.

VARIETIES ON ROUGH LEMON STOCK—

Oranges: Hamlin, King, Lue Gim Gong, Parson Brown, Pineapple, Tangerine, Valencia.

Grapefruit: Duncan, Marsh Seedless, McCarty, Thompson Pink Seedless, Foster Pink, Triumph.

Lemons: Ponderosa, Villa Franca, Perrine, Meyer.

Limes: Tahiti (Persian).

Kumquats: Marumi, Meiwa, Nagami.

New and Uncommon Varieties: Calamondin, Limequat, Thornton Tangelo, Mandarin.

VARIETIES ON SOUR ORANGE STOCK—

Oranges: Hamlin, King, Lue Gim Gong, Parson Brown, Pineapple, Ruby, Tangerine, Temple, Valencia, Washington Navel.

Grapefruit: Duncan, Marsh Seedless, McCarty, Thompson Pink Seedless, Foster Pink, Triumph.

Lemons: Ponderosa, Villa Franca.

New and Uncommon Varieties: Mandarin, Thornton Tangelo.

VARIETIES ON CLEOPATRA MANDARIN STOCK—

Oranges: Temple.

Lemons: Meyer.

Limes: Tahiti (Persian).

Recommended Distances for Planting

Orange Trees (except Temple): 15 by 30 ft.; 20 by 25 ft.; 20 by 30 ft.; 25 by 25 ft.

Temple Orange Trees, all Lemon and Lime Trees: 15 by 25 ft.; 18 by 25 ft.; 20 by 20 ft.

Grapefruit Trees: 20 by 30 ft.; 25 by 25 ft.; 30 by 30 ft.

Number of Trees to the Acre

Distance Apart	No. Trees Per Acre
15 by 25 ft.	116
15 by 30 ft.	96
18 by 25 ft.	96
20 by 20 ft.	108
20 by 25 ft.	87
20 by 30 ft.	72
25 by 25 ft.	69
25 by 30 ft.	58
30 by 30 ft.	48

To determine number of trees to the acre for other spacings, multiply the distance between trees in the row by the distance between rows. Then divide that figure into 43,560 and the result will be the number of trees required for one acre of land.



ORANGES

Our list covers the market season of Florida fruit. The list of standard varieties of Oranges which we are propagating for our customers cannot be improved upon, and when a planter has decided upon the season at which he desires to market his crop, the question of varieties to plant is easily settled.

With the establishment of our nurseries in 1882, the propagation of the Orange was undertaken. We have seen many varieties come and go. For over fifty years we have been growing citrus nursery stock. Naturally, during these years we have learned much, and our work today is backed by a knowledge of how to grow good Orange trees that is of the utmost value to our customers.

Hamlin Orange

Throughout the history of commercial citrus culture in Florida there has been a constant effort to find a high-quality, early, round Orange—one having early maturity combined with good flavor and attractive appearance, without the shortcomings of so many early Oranges. An Orange combining all of these good qualities has been in existence for more than fifty years.

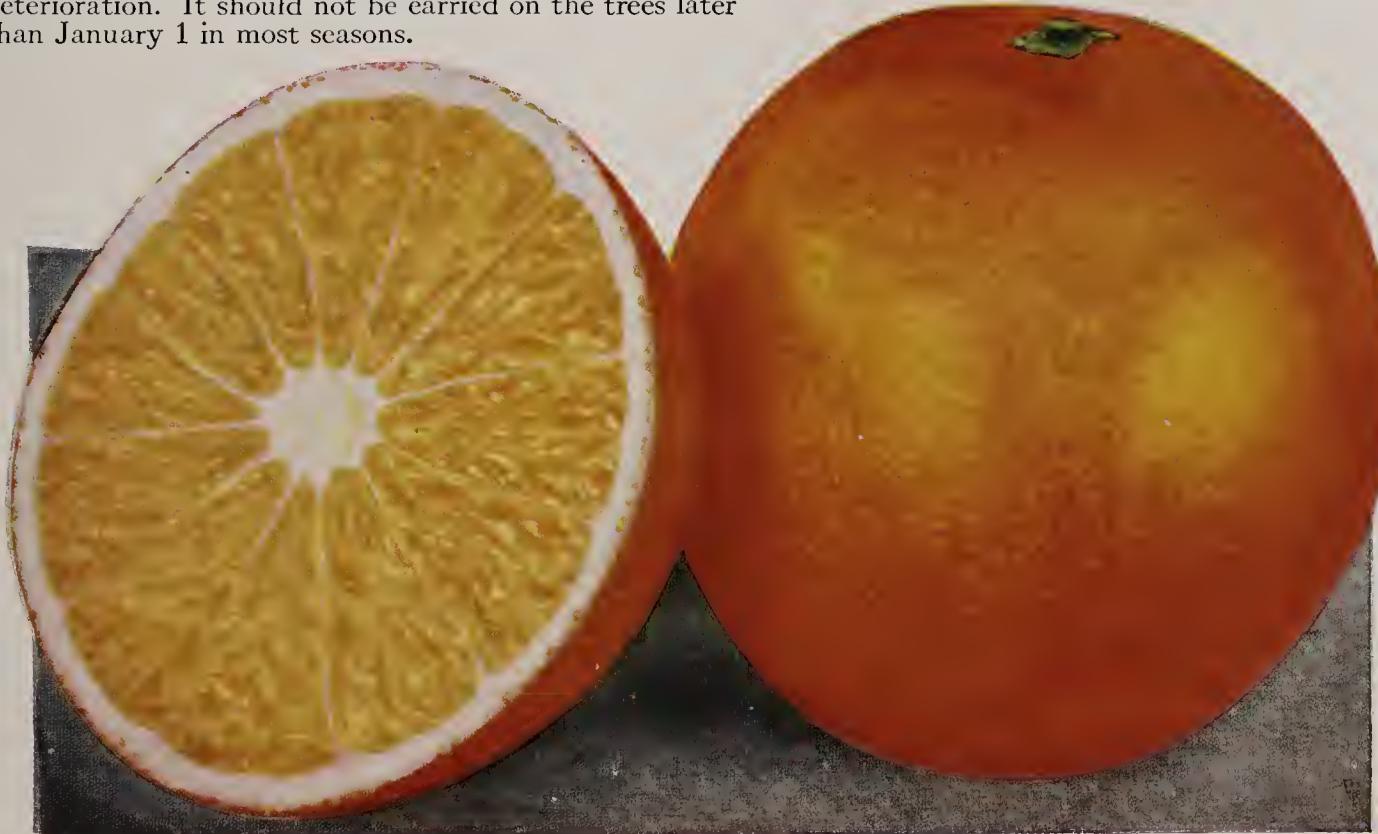
In 1879 an 8-acre grove was planted by Isaac Stone near Glenwood, Volusia County, Fla., for Mrs. Mary H. Payne, the mother of Mrs. A. G. Hamlin. In 1883 Mr. Hamlin, now a resident of Tavares, Fla., was attracted to the fruit on one of the trees which was entirely different from that borne by others in early ripening, thinness of skin, and height of color. Using budwood from this tree, he top-worked other trees in the grove and by 1895 was selling several hundred boxes annually under the name of "Hamlin's Favorite."

The freeze of 1895 destroyed all of these trees with the exception of three. From these trees Mr. Hamlin again started to propagate the variety. Eventually he budded about 15,000 trees and sold them under the name of Hamlin's Improved Pineapple.

The variety was first brought to our attention by H. A. Wright, of Glenwood, and later, in December, 1913, by F. W. Bredow, of Glenwood, a resident there for over forty years. From one of the original trees we secured budwood and began propagation of the Orange under the name of Norris Early Seedless. A considerable acreage of the variety was also planted in our own commercial grove. Later we changed the name to Hamlin, and under that name it has attained its enormous popularity and become known as the ideal early Orange. It matures in late September and early October, somewhat earlier in the northern citrus belt than in the southern. In Polk County it will pass the legal acid test of eight to one the first week in October, and it can be shipped at that time. It shows very good color as soon as it is mature enough to ship.

In color it is a clear, golden yellow, tinged with deep orange-red, which becomes more pronounced if the fruit is allowed to hang on the trees until full maturity. The texture of the skin is wonderful. It has the smoothest rind of any round Orange known to us and it is a distinctly fancy fruit.

Its flesh is melting, very juicy, with real delicious Orange flavor at its earliest maturity. It is practically seedless—most fruits have no seeds at all, but some contain from one to three seeds. The sizes are those for which the market pays the highest prices. Several hundred boxes from our own trees, and shipments made by others which have come under our observation, have practically all run 176's and 216's, with, of course, a very few 150's and 250's. It is a medium-sized Orange, and over a period of years it has proved to be an excellent shipper. Its normal season is October 1 to 10, but it can be held sixty days later without deterioration. It should not be carried on the trees later than January 1 in most seasons.



Hamlin Orange

Lue Gim Gong Orange

The Florida Orange Grove at the Century of Progress, 1933, was largely composed of trees of this variety, taken from the Flamingo Groves at Hollywood, Fla., but originating in our nursery.

The tree is a thrifty, vigorous grower, producing a low, well-rounded head, spreading rather than high and upright. In our own groves and nurseries we have observed, during several cold snaps, that trees of this variety invariably suffer less injury than any other variety of round or sweet Orange. This has also been the experience of many other growers under widely different conditions.

The Lue Gim Gong is a regular, consistent bearer, the equal, if not the superior, of any late Orange in this particular. This is very unusual, for in the case of most late varieties, if the fruit is allowed to hang on the trees until late in the season, the crop following will be light.

The fruit is edible in March and April, but is then too acid for most tastes. It is ripe in May and from then on is delicious. While it will hang on the trees for months, for all practical purposes it should be marketed as a remarkably late Orange, say in June or July. The fruit is nearly, or quite seedless.

Parson Brown Orange

Our strain of Parson Brown goes straight back to the original source, and we have been growing it in orchard and nursery for more than twenty-eight years. We have selected and re-selected it from bearing trees until we know there is no better Parson Brown than the old Carney Parson Brown, Glen Saint Mary selected and grown. It was introduced about 1878 by Capt. J. L. Carney, of Lake Weir, Florida. The fruit is medium to large size, of fair quality, and is ready to market in early November or sometimes late October.

Pineapple Orange

The fame of this variety was established many years ago, and of all the Oranges which have originated in Florida it has been most largely planted. It often happens that varieties in favor at one time are later supplanted by others, but this has not been the case with Pineapple. No orchard planting today is contemplated without considering this variety, and we venture to say that so long as Oranges are grown in Florida the Pineapple Orange will make up a generous part of the output. It originated in the heart of the old citrus belt of Florida, near Citra, in the grove of Dr. James B. Owens. Because of its peculiarly fine flavor and its fancied resemblance in flavor to a pineapple, it was so named. The fruit was first marketed in quantity by Bishop, Hoyt & Co. It soon established a reputation which it has maintained and increased from year to year.

The fruit is of good size, a deeper, richer red in color than any other round Orange we know. Of course, it has to become well ripened before its full color develops, and in some localities it takes on higher color than in others. In quality it is unsurpassed, its flavor being a rich blending of sweet and subacid peculiar to the variety. It resembles the pineapple not only in taste but also in odor. Pineapple Orange trees bear well. For its season, January to February, it has no superior.

The recent development of frozen orange-juice and canned orange-juice opens a tremendous field for this variety, as it has been proved to be ideal for this purpose.

Dancy Tangerine Orange

This Orange, a "kid glove" Orange, by the way, is almost an exclusive Florida citrus monopoly, as it is not grown in sizable commercial quantity in any other citrus-producing area in the world. Its sale has never been properly pushed, but with the correct merchandising and advertising effort put behind it, Tangerines should bring the growers very satisfactory returns.

The Tangerine tree has a tendency to rather upright growth when young, but later heavy crops of fruit weigh down the branches, causing a more or less open top and wide-spreading branches.

Its fruit is flat, of medium size, with very smooth rind and of a brilliant, deep orange-red color. The flavor of the juice is distinctive and sprightly. Skin is easily removed and the sections separate readily, making the Tangerine an ideal fruit for eating out of hand.



The Temple Orange

ILLUSTRATED ON FRONT COVER

In August, 1924, we acquired the nursery interests of the Buckeye Nurseries, Inc., Tampa, Fla. These were the largest nurseries in the world devoted exclusively to the growing of citrus trees. For many years the late Myron E. Gillett and his son, D. C. Gillett, occupied a foremost position in the citrus nursery business of Florida. Among their achievements was the introduction of the Temple Orange. In the transfer above mentioned, the Temple copyright and franchise came into our possession, and we have the sole right to propagate and distribute trees of this variety. No other nursery can legally sell the Temple Orange. Furthermore, planters are absolutely sure to get from us trees of the true Temple Orange with a straight-line ancestry back to the parent tree.

Since the introduction of the Temple Orange, in 1917, we have had it under close observation and have investigated its behavior and characteristics from every angle. We have propagated it in the nursery, have planted it in our own groves, brought it into bearing, and have watched with keen interest its performance in plantings of many others.

We believe that, propagated on the right stock and the trees properly handled on any good citrus soil, Temple is one of the finest Oranges that have ever been brought into cultivation. We have very complete knowledge of the behavior of Temple on all the important citrus stocks. We do not offer it for sale on Rough Lemon stock, as on this stock, especially on young trees, the fruit has a tendency to coarsen and dry out. On Sour Orange, Cleopatra, and for North Florida, Citrus Trifoliata, wonderful high-quality, heavy, juicy fruit is produced, and it can be planted on lands to which these stocks are adapted with every assurance of success.

To produce high-quality fruit of this variety, the top- or wood-growth of the tree must not be too rapid. Rather must it be somewhat slower than that of other varieties, and in no case should it be unduly forced in growth. This can, of course, be controlled by properly selected root-stocks, by reducing the amount of cultivation given and fertilizer applied. It is an extremely precocious variety and bears early and heavily.

More and more satisfactory financial returns from the production of citrus fruits are dependent upon the growing of strictly high-grade fruit. From every standpoint the Temple Orange is a fancy fruit. With its beautiful appearance and fine quality, Temple has taken an outstanding position in the citrus markets. Production has reached the point where during its season Temple is quoted in produce and sales bulletins under its own name and brings fancy prices. Temples are marketed during the latter part of the Tangerine season and considerably later. Inclusion of Temple in the setting of a grove will yield a very profitable return for the planter. The planting of it cannot be overdone, as we sell the genuine Temple exclusively, and sell only a limited number each year.

Valencia Orange

This is, perhaps, the most famous variety of fruit in the citrus industry. It is one of the two leading varieties of California, the most prominent in Spain, and the standard late Orange of Florida. It has been known by many names—Hart's Late, Tardiff, Valencia Late, etc.,—and came to America from Spain in different ways, but it is all one Orange. Today it is the most widely grown late Orange and the only one to be considered for its season—March to June. Owing to the fact that it is practically the only Orange on the market at this time, the Valencia commands a fine price, and, consequently, plantings of this variety are very profitable. A survey of prices received for Valencias over a long period of years shows that the returns have been most uniformly good. In years of short crops, or held very late, instances of growers receiving as high as from \$7 to \$9 per box, net, on the trees, are not uncommon. The general average would be in the neighborhood of \$4. In planting Valencia, a locality should be selected that is reasonably free from frost or damaging cold, as the fruit remains on the trees throughout the winter months.

The tree is a strong grower and comes into bearing early. It blooms at the same period as other varieties—usually in February—but matures its fruit slowly, and it is not until over a year later, the following March, that it is ripe enough to ship. However, the trees put out bloom and set a normal crop while carrying the current or old one. It can be held on the trees until late May or early June, thus allowing for a wide marketing period. During the spring months, bearing Valencia trees, while they are carrying a mature crop, should not be forced into too active or lush growth. If this is done there will be a tendency for the fruit to turn green and dry out at the stem end. The heaviest application of fertilizer should be put on in June after the old crop is removed, and then again in the fall.

Valencia fruit is of medium size, of good color, with thin skin and firm deep orange flesh. It is practically seedless, containing only a very few seeds, is very juicy and, in quality, delicious. It is also a splendid shipper, is marketed under the name Valencia, and is most favorably received in all citrus markets.



Valencia Oranges

Many years ago we tested out a number of strains of Valencia from both California and Florida. Most of them showed only slight variation in fruit or tree characteristics. However, we selected the one which showed the best tree-growth, bore the most desirable market sizes uniformly, produced the finest fruit, and proved to be the most prolific and regular bearer. This strain was from one of the greatest Valencia orchards in California. There are many strains of Valencia trees on the market, but we firmly believe that we offer our customers the best Valencia in existence.

Washington Navel Orange

In many ways this is the most remarkable Orange grown today. It is the Orange which standardized the output of California citrus orchards, and perhaps it is not too much to say that this single variety has been in a large measure responsible for the citrus development in that state.

Until the last several years the growing of Navel Oranges in Florida has been commercially disappointing on account of the tendency of the variety to bear very shy crops of coarse, over-sized fruit. But in 1932 W. G. Roe, prominent fruit-grower and shipper, of Winter Haven, called our attention to a strain of the Washington Navel in one of his Polk County groves. These trees are each year producing excellent crops of normal-sized fruit. Using budwood from these trees, we have propagated and are now offering nursery trees which we have every reason to believe will prove well worth an extensive trial by Florida citrus growers. Certainly, it would be a wonderful asset to the citrus industry of the state if Navel Oranges could be produced to compete with the California product.



THE TAHITI (Persian) LIME

Of all the acid fruits which may be grown in Florida, the Tahiti Lime is one of the most satisfactory for home use as well as for commercial planting. It is not quite so hardy as the lemon and its culture should be confined to localities where there is little or no danger of injury from cold. It grows as a dense-foliaged, round-topped tree, 12 to 15 feet in height. It is a very vigorous grower and remarkably free from insect and fungous pests.

The fruit of Tahiti is of the finest quality for making ade. It is best suited for use when full size but while the skin is still green. In size and shape it resembles a small lemon, but it is a much smoother and nicer fruit. It is seedless, has a splendid Lime flavor, and is so much superior to other varieties of Limes that it is the only one we now propagate. Our experience has shown that the Tahiti Lime is a complete success budded on Rough Lemon stock and planted on well-drained, sandy land. On this stock it makes a splendid growth and is very prolific. Also, we are offering Tahiti budded on Cleopatra Mandarin stock for use on heavier types of soil where Rough Lemon stock is not suitable.

Matured fruit, partly grown fruit, and blossoms are found on the trees at nearly all seasons of the year, but the heaviest bearing season is in the summer when the fruit is in greatest demand. Buyers of Limes are scouring the state throughout the year and are willing to pay fancy prices for fruit from even a single tree. We strongly recommend the planting of Tahiti Lime trees in well-protected locations as an almost certain source of very profitable returns.



Tahiti (Persian) Lime

KUMQUATS

The Kumquat is the smallest of the citrus fruits in general cultivation in this country. Usually the plants are called bushes, for they do not make trees. The plant grows to a height of 10 to 12 feet, with a spread of branches about equal to its height. The bright, dark green leaves and deep golden yellow fruits make a very pleasing combination of color. The flowers are small, sweet-scented, and appear in June on the shoots produced earlier in the same season. The fruit ripens during the fall and winter, beginning with the month of November. As an ornamental alone, it is not surpassed by any other evergreen shrub with which we are acquainted.

In point of hardiness, the Kumquat ranks with the Satsuma orange. It will withstand temperatures of 15 degrees Fahr. and even lower.

We are the largest growers and shippers of this fruit in the country, having marketed from four to six hundred bushels of fruit annually for several years past. The crop has netted from \$2.50 to \$3.25 per bushel, sometimes selling as high as \$6 to \$10 per bushel. We have found it a profitable fruit to grow, as the trees yield well and can be planted close together. When gathering the crop we always cut the fruit from the trees with twigs and leaves attached, and pack a goodly proportion of leaves with the fruit. They are packed in quart baskets and shipped in strawberry crates. The fruit always sells better with foliage attached. This is an advantage, as the leaves help to fill up the baskets, and make a larger bulk than if the fruit alone were packed. The fruit is largely used for table decorations, and is in largest demand for Thanksgiving and Christmas holiday trade. Very appetizing jelly and marmalade may be made from the fruit, and it can also be crystallized. For commercial planting, or for use as an ornamental for home use only, Kumquats are well worth planting.

Marumi. Fruit round, about 1 inch in diameter; bright golden yellow. Rind sweet, with pleasant flavor; pulp and juice sprightly; very fine. Tree forms a well-rounded, symmetrical head.

Meiwa. Fruit round, slightly larger than Marumi; pulp sweet when fully ripe. Of recent introduction and very desirable. Best of all Kumquats to eat out of hand.

Nagami. Fruit oblong, about $1\frac{1}{2}$ to 2 inches long and 1 inch in diameter; fruit golden yellow; rind sweet; pulp and juice sprightly, of fine flavor. Tree forms a nice head, more open than Marumi.

LEMONS

A number of years ago, before the newer sections of Florida were opened up, Lemons were raised in considerable quantities. A number of causes contributed to the reduction of the plantings, until at this time Lemons are grown in small numbers only. It is now quite certain that a return to the planting of this citrus fruit will make a profitable investment under proper conditions. The growing of Lemons for use in this state alone is an industry worthy of consideration.

In the past few years two varieties, comparatively new to Florida growers, have been introduced and bid fair to become important commercially. These are Meyer and Perrine, described below.

Meyer Lemon

This variety, also known as the Chinese Lemon, has attracted favorable attention because of its hardiness, thrifty growth, and heavy fruiting. The fruit, when mature, is almost round, very smooth, and takes on an orange color in both rind and flesh. It ripens mostly in the fall and winter months.

On account of its lack of resemblance to the ordinary yellow Lemon, it may prove difficult to build up a market for the Meyer in competition with the long-established California and Italian varieties. Notwithstanding, a number of leading growers are planting the Meyer extensively, and, with proper merchandising, it is entirely possible that a market can be established. Most certainly it should be grown extensively for home use and for the local market.

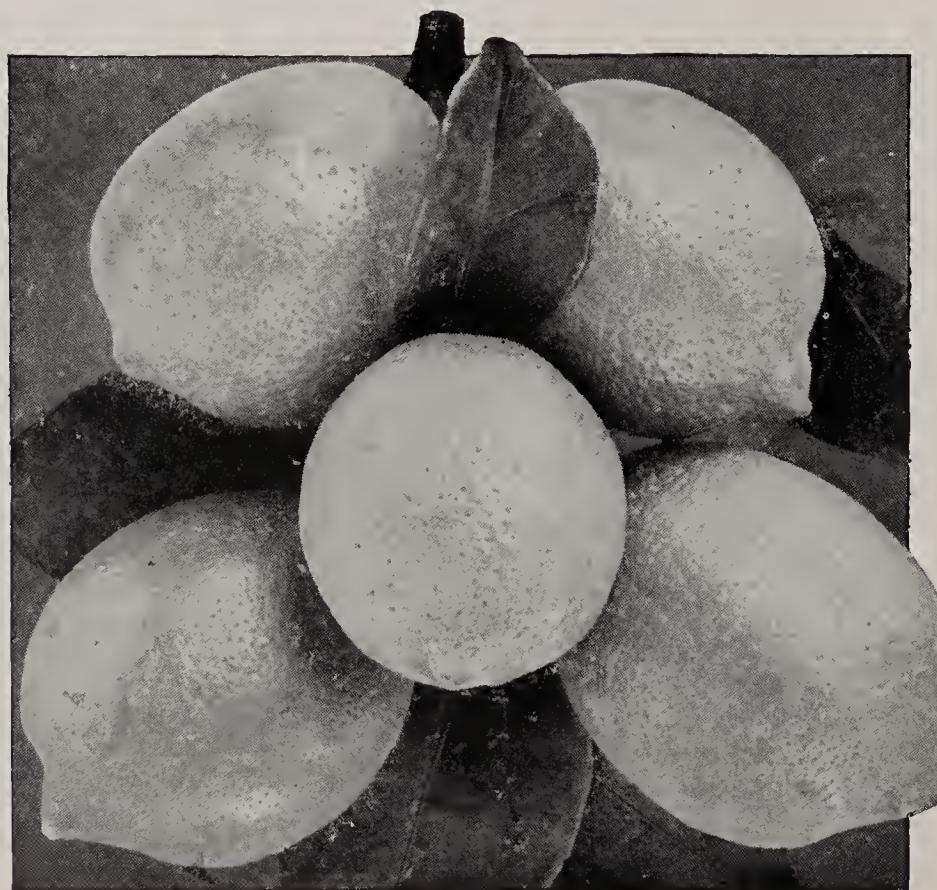
Perrine Lemon

The Perrine is a hybrid resulting from a cross between the West Indian lime and the Genoa Lemon. In appearance it is a genuine Lemon, both in size and color, and we believe it is the most promising variety ever introduced in Florida.

The tree grows vigorously and bears prolifically, even when quite young. It has a decided advantage over other varieties of Lemons and limes in that it has thus far proved entirely immune to the two worst diseases of these fruits, Lemon scab and lime wither tip. Repeated observations have failed to detect any infection on either foliage or fruit.

The fruit, as indicated, has much the shape, size, and color of the ordinary Lemon. Its rind is thin and tough, which would indicate excellent shipping and keeping qualities. The juice has a real Lemon flavor, strongly acid, with no "off taste." Seeds few in number. Trees more or less everbearing in habit. The Perrine, while hardier than the lime, should be planted only in well-protected locations. It has been successfully budded on Rough Lemon stock only.

In our opinion, for growers who hesitate to plant any more acreage to the standard varieties of citrus and who are looking for something new and promising, the planting of the Perrine Lemon on an extensive commercial scale should be most seriously considered.



Perrine Lemons

Ponderosa Lemon

An exceptionally large Lemon, fruits weighing from $1\frac{1}{2}$ to $2\frac{1}{2}$ pounds. This fruit, while a great novelty, has at the same time a well-defined usefulness. The juice from one of them will make a large pitcher of lemonade. It can also be used in all the culinary ways in which ordinary Lemons are used. It makes a very fine, thrifty, ornamental tree and bears heavy crops when quite young. Two or three of these trees should be included in every home orchard planting.

Villa Franca Lemon

In our test orchards we have grown and fruited for years all the important commercial varieties of Lemons. As a result of these tests we are convinced that Villa Franca is the Lemon for home use in Florida. The fruit is juicy, strongly acid, and of fine quality, almost or quite seedless. The tree is quite free from thorns, a fine grower, and produces regularly fine crops of good fruit.



Original Duncan Tree

Though over eighty years old, these trees are still producing enormous crops of fruits

Sister Tree to Duncan

GRAPEFRUIT

The Grapefruit industry of today is a growth of not more than forty years. The increase in cultivation, production, and use of Grapefruit is without a parallel in American horticulture. It is Florida's greatest single fruit contribution to the tables of the world, and it is in Florida that its culture has reached its greatest development. Its consumption has increased faster than the supply. Extensive advertising in various ways, resulting in wide distribution, has been a large factor in popularizing this comparatively new and very wholesome fruit. In addition, it should be remembered that, tree for tree, a Grapefruit planting will produce twice the number of boxes of fruit that orange trees will at practically the same cost of production. For example, under the same conditions, assuming that a six-year-old orange tree will produce 2 or 3 boxes, a Grapefruit tree of the same age will yield 4 or 6 boxes. The market for Grapefruit is continually broadening, and canning the fruit has greatly widened its distribution. On the whole the Grapefruit outlook is very satisfactory.

Duncan Grapefruit

We consider Duncan the finest early Grapefruit grown. During all the years we have been in the citrus business (and during this time we have grown, observed, and tested a host of varieties), we have never found a Grapefruit which is quite the equal of Duncan in all-round desirability. It has everything a Grapefruit should have, and is lacking in no particular. Its size is exactly what the markets want and pay best prices for—54's to 70's. Its shape is round, slightly oblate, and it packs well. Color a clear light yellow, with oil-cells showing through the smooth skin. The juice content is particularly heavy and possesses more than any other Grapefruit the true sweet-bitter-acid-grapefruit flavor. The season of this fine Grapefruit is an extended one. It is ripe enough in color and quality to ship in early November, and it can be held on the tree without deterioration until late in May. We have been propagating Duncan for more than a quarter of a century. Our first budwood was secured from the original Duncan tree at Green Springs, Fla. It has weathered the storms, cold spells, and neglect of more than eighty years and is still bearing good crops. Through all the cold periods which we have experienced during the past quarter of a century, both in north and south Florida, we have observed that Duncan invariably has suffered less than any other variety. It is unquestionably the hardiest of all the Grapefruit.

Marsh Seedless Grapefruit

This fine variety originated at Lakeland, Fla., and was first brought to notice and grown by Mr. C. M. Marsh, about 1895. Its most marked characteristic is its practically seedless fruit. Its marketing season begins in January, and, because it is so nearly seedless, the fruit can be held on the trees later than all other varieties except McCarty, which is equally late. The fruit is very handsome in appear-

CITRUS FRUITS

MARSH SEEDLESS GRAPEFRUIT, continued

ance, with smooth yellow skin. The quality is fine, a great favorite in the markets, and always commands good prices. It is becoming known as a distinct variety, and sells, not simply as Grapefruit, but under its own name. Like all other varieties of Grapefruit which we grow and recommend for commercial planting, Marsh Seedless fruits run in the sizes most desired by the fruit trade.

The tree makes a low, dense, spreading head, often measuring more across the spread of the branches than it does in height. It bears heavy, regular crops. In every well-balanced planting, Marsh Seedless should be given a liberal place.

McCarty Grapefruit

Many years ago the McCarty Grapefruit, an Indian River variety named for the late Mr. C. T. McCarty, attracted our attention. After keeping it under observation for several years, we decided to propagate it. It possesses in a marked degree the distinctive habit of producing its fruits singly instead of in bunches or clusters. This feature, coupled with its late ripening period and its very high quality, has so impressed us with its merits that we have come to regard McCarty as one of the finest Grapefruits grown in Florida today. Because it does not grow in clusters, the fruit is very uniform in size and shape, and very free from those blemishes caused by clustering, such as extensive scale injury and misshapen fruits. We believe this variety is not surpassed by any other as a regular, uniform bearer. The fruit is of best market size, light, waxy yellow in color, with skin of beautiful texture. It is distinctly a fancy fruit; has a perfect Grapefruit flavor and the flesh is melting, free from fiber and rag when properly grown.

Thompson Grapefruit (Illustrated on Back Cover)

This variety originated as a sport from Marsh Seedless. It is very similar to its parent, slightly larger, not quite so flattened, of excellent flavor, and the flesh is delicate pink in color.

We consider the introduction of the Thompson the most important development in the Grapefruit industry for twenty-five years. Originating in Manatee County, Florida, it was first planted extensively in the Rio Grande Valley of Texas. The fruit made an instantaneous hit in the northern markets, with the result that handsome premiums were paid and are being paid for it today.

Its pink-colored flesh appeals to the housewife for salad purposes, and it is eagerly sought, particularly by the high-class restaurant and hotel trade.

In view of the extensive plantings in Texas, we consider it of the utmost importance commercially that Florida growers plant the Thompson here in order that they may successfully meet this Texas competition with a similar product.

Foster (Pink) Grapefruit

This variety originated many years ago as a bud sport of the Walters, in a grove near Bradenton, Fla., and was first introduced by E. N. Reasoner, Oneco, Fla. The flesh is purplish pink in color and in quality it ranks as one of the best of the Grapefruits. The outstanding feature of the variety, aside from its color, is the very excellent quality it develops early in the season.

The possibilities of the Foster from a commercial standpoint are, in our opinion, equally as important as the Thompson and we strongly recommend its extensive planting.

Triumph Grapefruit

There is always a demand for an early Grapefruit, particularly for home use or for local market. Those varieties which ripen in midseason or later do not develop sufficient juice early in the season to make them satisfactory at that time. The Triumph Grapefruit fills the place of an early fruit better than any other variety with which we are acquainted. It is in good eating condition in November and has a season of about eight weeks, depending upon the stock on which it is propagated and the citrus section where grown. It is a very prolific sort and the fruit, though smaller in size than our other varieties, runs very uniform. The size of the fruits may be materially increased by judicious thinning late in June. It is heavy, juicy, well-flavored, and smooth-skinned. It is sweeter than Grapefruit ordinarily is and in quality it is fine. The tree is quite an upright grower, with characteristic appearance and foliage. It is more susceptible to cold than other varieties and its location should be carefully selected.



NEW AND UNCOMMON CITRUS FRUITS

On this page we are offering a few new or uncommon citrus fruits. After many years, the citrus fruits commonly grown in commercial plantings have become fairly well standardized. In reality, this is the outcome of a large experience gained by many growers in different parts of the citrus districts. Had it not been for the testing of many sorts, we would not today have the exact knowledge concerning the behavior of different varieties that we now possess.

The varieties described here are old enough to have been fairly well tested out, and they are, in our opinion, worthy of planting. Some of them will take a place in commercial plantings as soon as they become better known.

The home-orchard is a neglected side of citrus culture at this time. Citrus trees are almost invariably planted to supply fruit for some distant market, and the wonderful variety of very fine fruits for home use do not receive the attention they deserve. The varieties described here are well worthy of a place in the home-orchard. From time to time, in the future, new sorts now under test will be added.

Calamondin

Small, $1\frac{1}{4}$ inches in diameter, deep orange-red, flattened, with thin skin, easily separated from the pulp; sections easily separated as in the Mandarin oranges; juice clear, strong acid (5 per cent), with a pleasant, peculiar flavor. Very hardy, prolific, ripening during November and December. This citrus tree is very hardy. In north Florida it has shown itself to be nearly or quite as hardy as the Satsuma orange. It is a very handsome tree and well worth planting for its ornamental effect. The juice makes an "ade" that can hardly be surpassed.

Eustis Limequat

This new citrus fruit is the first of its kind offered to tree planters. It is the result of a cross made a number of years ago by Mr. Walter T. Swingle, of the U. S. Department of Agriculture, between the Nagami kumquat and a lime. Mr. Swingle was trying to secure a hardy acid fruit and has succeeded even beyond his greatest expectations.

The fruit is oblong or roundish oblong, somewhat larger than the ordinary run of Key or Mexican limes, with skin resembling that of the grapefruit in color and texture, but with a flavor or taste peculiar to itself. The acid is clear and strong and of finest quality. The tree resembles somewhat the Mexican lime in habit of growth. It is hardy and may be grown at least wherever the sweet orange can be produced, and the indications are that its culture may be extended beyond these limits.

The introduction of this fruit makes it possible to produce an acid fruit of finest quality throughout the entire sweet-orange area. It is a very important addition to our list of citrus fruits, whether for market or for home use.

Mandarin Orange

The Mandarin or China Mandarin Orange is an old sort. It has distinct value as an ornamental tree and in some sections, notably in southern Louisiana, it is given preference in commercial plantings. Years ago we used to grow this variety in considerable quantity, then dropped it from our lists. Recently we have had so many inquiries for it that we are again growing a few trees of it.

The fruit is of medium size, flattened, deep yellow, with thin skin and loosely adhering segments. The flesh is dark orange-yellow, spicy, and of good quality.

The foliage is fine and small, and the growth willowy, combining to make it a very beautiful tree.

Thornton Tangelo

As its name indicates, this citrus fruit is the result of a cross between the Tangerine orange and the Pomelo or grapefruit. It originated a number of years ago as the result of a cross made by Messrs. Swingle and Webber, of the U. S. Department of Agriculture. In habit of growth it is similar to the grapefruit, but the skin is easily removed from the flesh; in this particular it is like the tangerine. The fruit is smaller in size than most grapefruit (which, in general, it resembles). The flavor is very agreeable, a new combination of flavors, as might be expected from its origin.

PLANTING INFORMATION

PREPARING THE LAND

Before planting, the land should be thoroughly cleared of all the native growth. After clearing, the land should be plowed moderately deep, harrowed, leveled, and the soil put in as good condition as possible. It is advisable to fence the land as a protection from live-stock. It is an excellent plan to sow a cover-crop on new land the summer before the trees are planted. The cover-crop shades the bare land from the sun and when turned under in the fall it adds humus and greatly improves the condition of the soil. When the ground is already in good condition, however, the trees may be planted at once and cover-crop sown later between the tree rows.

THE PLANTING SEASON

In Florida, planting is usually done either in the winter, from December 15 to March 15, or in the summer after the rainy season starts. The winter is preferred, as at that season the ground is cool and moist and the trees become well established before the spring drought begins. We are in position to offer our customers expert assistance in the planting and care of young trees, and in many cases we actually arrange all details of the planting work where the grower is inexperienced and prefers to have us plan the work.

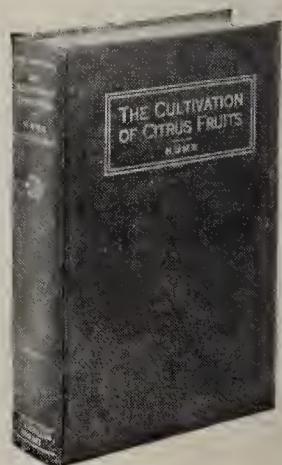
SETTING THE TREES

It is best to plant the trees as soon as possible after they are received from the nursery. If planting must be delayed, the trees should be removed from the box or bales in which they are shipped and heeled in to prevent the roots from drying out. The roots should never be permitted to become dry, even for a short time. When they are taken to the field for planting they should be kept covered with wet packing or carried in a barrel half filled with water. The holes dug for the trees should be of ample size to receive the roots without crowding and should be dug at planting-time, as otherwise the soil will dry out too much. Just before they are planted, all bruised or broken roots should be trimmed from the trees with a sharp knife. The trees should be set at the same level or an inch or so higher than they stood in the nursery. If set deeper, the topmost feeder roots are smothered and the tree fails to make proper growth. The roots should be evenly spread out and surface soil packed among them until they are well covered. Not more than 1 or 1½ inches of soil need be placed over the topmost roots. It is very essential that the soil be well firmed and packed so that it is in close contact with the roots. While some growers mix about a half pound of good commercial fertilizer with the soil used for filling tree-holes, we recommend that fertilizer be placed around the tree a week or ten days after the tree has been set. However, in marl soils, manure well worked into the tree-mounds before planting has proved decidedly beneficial. After the hole is filled with well-packed soil, a shallow basin should be made around the tree and five or ten gallons of water applied. To prevent evaporation of moisture, this basin should then be covered with a mulch of dry soil. When there is danger of frost, the basin should be omitted and the trees mounded or banked with soil so that the lower portion of the tree, up to a point well above where it was budded on the stock, is protected from the cold. Dry, clean soil, free from waste or litter, should be used, as trash or decayed matter frequently attracts wood-lice. As soon as the danger from cold is over, the mounds should be removed, as soil left mounded about the trunk in warm weather may favor bark diseases or cause the bark to become heated. The trees should be watered from time to time whenever their appearance indicates the need. In the absence of sufficient rain or during a protracted dry spell it is well to water the young trees every ten days. By examining the top-soil around the trees it may be determined whether or not the moisture-level has receded sufficiently to make watering necessary. Except during the rainy season, the ground in the tree-rows should be cultivated so that a dust-mulch is formed and evaporation checked as much as possible.

In shipping trees from our nursery, we cut back the tops to a point which by experience we have found will give the best results in the grove. Tops must be cut back to make up for the pruning which the roots receive at transplanting. The balance between the root-system and the top must always be maintained. Trees that are headed at planting-time will need very little pruning for the first two or three years. After the grove is planted, it is an excellent plan to make an accurate diagram showing the location of each tree and variety.

THE CULTIVATION OF CITRUS FRUITS. By H. Harold Hume

This citrus book covers all phases of citrus fruit-growing. It deals exhaustively with varieties, propagation, nursery practices, planting, fertilizing, pruning, and frost protection, and covers the details of orchard management and harvesting and marketing the crop. Insects and diseases are described and methods for their control are discussed. It contains 561 pages and 237 illustrations from drawings and photographs. Price \$3.50 per copy, postpaid.



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Terms of Business

Location. Our office for the handling of citrus tree sales is located on the second floor of the American National Bank Building, Winter Haven, Fla. Our citrus nurseries and packing-house are located at Dundee, on State Highway No. 8, seven miles east of Winter Haven and eight miles north of the Bok Singing Tower. Visitors are always welcome.

We also maintain branch sales and service offices in Orlando at Room 3, Grant Building, East Pine Street and Orange Avenue, and in Tampa at Room 312, First National Bank Building.

Prices. No prices are published in this Catalog, but a copy of our current price-list is enclosed. Special prices for large acreage plantings or colonization projects will be gladly quoted on request.

Cash, or satisfactory reference, must accompany all orders for immediate shipment, unless other terms have been previously arranged. On orders booked in advance of the shipping season, a deposit of 25 per cent is required.

Method of Shipment. Please state clearly how you wish shipment made—Parcel Post or Express. Lacking this information, we will use our best judgment. On orders shipped by Parcel Post, add 25 per cent to the total cost to cover cost of packing and postage. Express shipments will be forwarded charges collect.

Truck Shipments. On orders for 500 trees or more, shipment will be delivered free of charge by our truck, direct to the location of the planting. Orders for smaller lots of trees can also frequently be delivered in this way, provided they can be combined with larger shipments on the same truck. This added service insures our customers receiving their trees within the shortest possible time after they are dug.

Substitution. It is our desire to furnish stock exactly as ordered. On orders for commercial plantings, substitution of varieties will not be made without permission from customer. On small orders, items which we are unable to supply will be omitted unless we are instructed to substitute.

We guarantee all stocks sent out to be well rooted, well grown, true to name, properly packed, and shipped according to instructions. Our liability under the foregoing guaranty is limited in amount to the original price received.

ILLUSTRATED GENERAL CATALOGS

containing descriptions of ornamentals and non-citrus fruit trees, grown at our main nursery at Glen Saint Mary, Florida

WILL BE MAILED UPON REQUEST

Write to Our Office at Glen Saint Mary, Florida



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